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External trade

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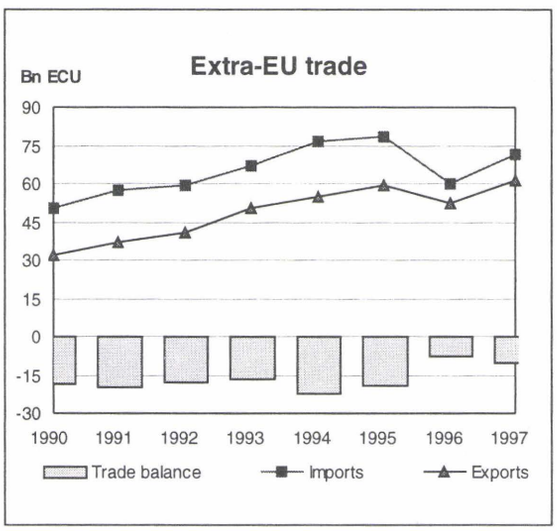
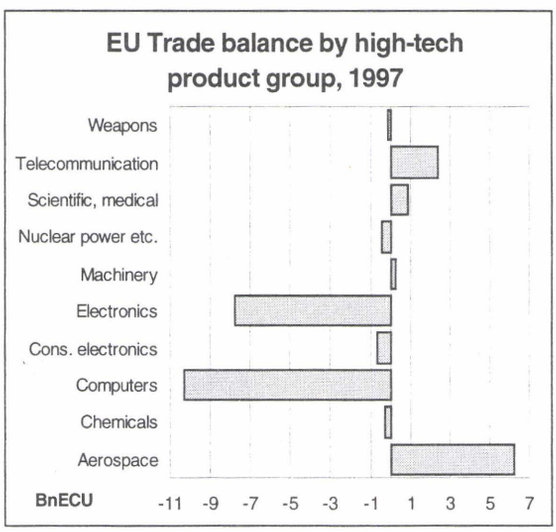
Improvement in the European Union's balance of trade in high technology products





High technology products can be broadly classified into ten categories: "aerospace industry products", "chemical products", "computers and office machinery", "electronic consumer goods", "general electronic goods", "machines", "nuclear energy, radioactive materials and isotopes", "scientific and medical instruments and prostheses", "telecommunications" and "arms and munitions". Between 1990 and 1997, the European Union imported more high technology products than it exported. This caused a structural deficit which, however, tended to decrease towards the end of the period: between 1990 and 1997, imports increased from 51 to ECU 72 billion while exports almost doubled, increasing from ECU 32 to 62 billion. The EU trade deficit was correspondingly much improved; during this period it decreased by almost half, dropping from ECU 19 to 10 billion. The EU's lowest deficit was in 1996 (ECU 8 billion) when imports dropped significantly by 23%, while exports decreased by only 12%.

In 1997, the European Union's largest trade surpluses were in aerospace industry products (ECU 6.2 billion) and telecommunications (ECU 2.4 billion). Two other sectors, scientific and medical instruments and prostheses and machines recorded smaller trade surpluses of 0.8 and ECU 0.2 billion respectively. During the same year the largest EU trade deficits were in computers and office machinery (ECU 10.3 billion) and general electronic goods (ECU 7.8 billion). There were lesser trade deficits in the remaining sectors - electronic consumer goods, nuclear energy, radioactive materials and isotopes, chemical products and arms and munitions - of ECU 0.7, 0.4, 0.3 and 0.1 billion respectively.

Source: EUROSTAT for the EU-15 and Member States (imports CIF, exports FOB) and Comtrade for other declarants.

The data in this publication refer to trade by the European Union of fifteen Member States including the years prior to the enlargement. However, the three new Member States (Austria, Finland and Sweden) did not use the Community methodology when producing the pre 1995 data.

The unit Bn is equal to one thousand million

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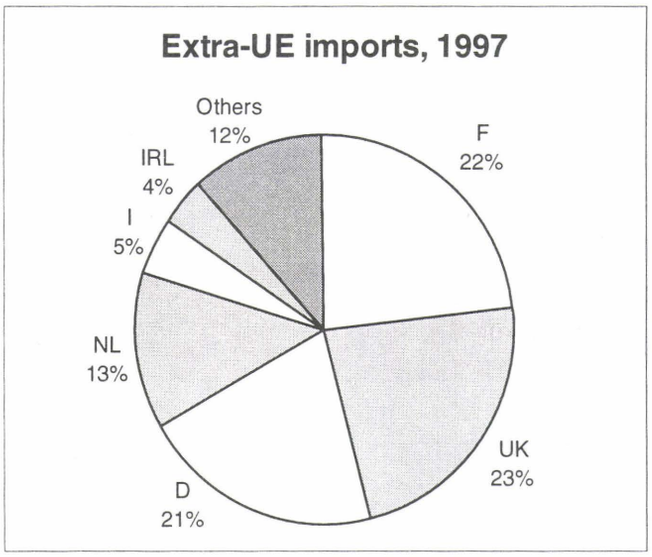
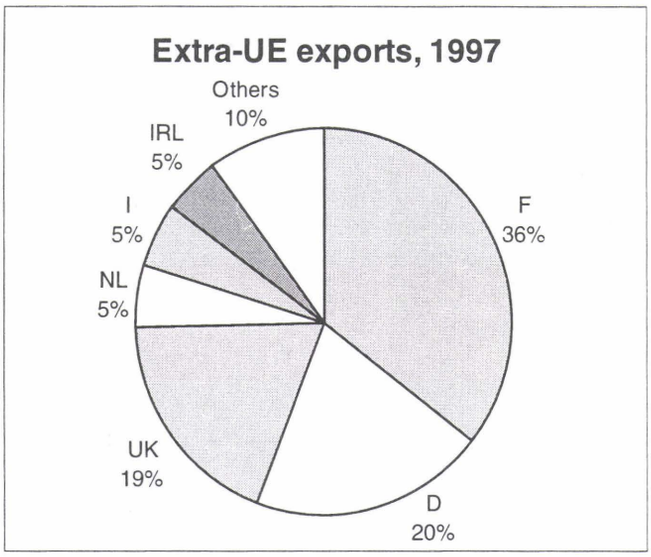
I. The individual Member States





Imports of high technology products from outside the European Union amounted to ECU 71.5 billion in 1997. Over three fifths of these imports were made by Great Britain, France and Germany, with shares roughly equivalent to 23%, 22% and 21% respectively.

Exports of high technology products outside the European Union amounted to ECU 61.6 billion in 1997. Three quarters of these exports were from France, Germany and Great Britain and over half from the two former. In relative terms, France alone accounted for 36%.

The European Union's trade deficit amounted to ECU 9.9 billion; the Netherlands was responsible for just over half of this figure (ECU -6.2 billion) and the United Kingdom for almost half (ECU -4.7 billion). France achieved the largest trade surplus, amounting to ECU 5.2 billion.

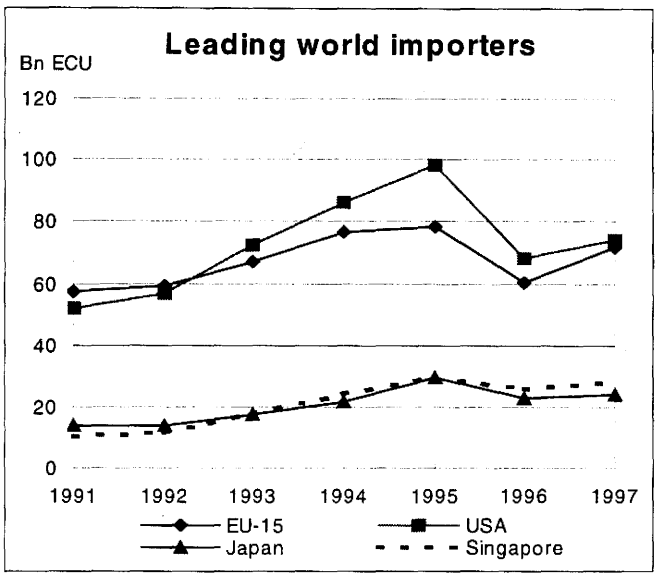
A large amount of foreign trade in high technology products is intra-Community trade. In fact, both for the European Union overall and each Member State individually, Community preference is sometimes the rule. Ratios of intra-EU trade to total trade indicate levels of often over 50% for half the Member States and below 50% for the other half. It should also be noted that almost all intra-EU exports are from France (ECU 17.2 billion), Germany (ECU 14.2 billion), the United Kingdom (ECU 11.3 billion), the Netherlands (ECU 11.1 billion) and Italy (ECU 3.7 billion).

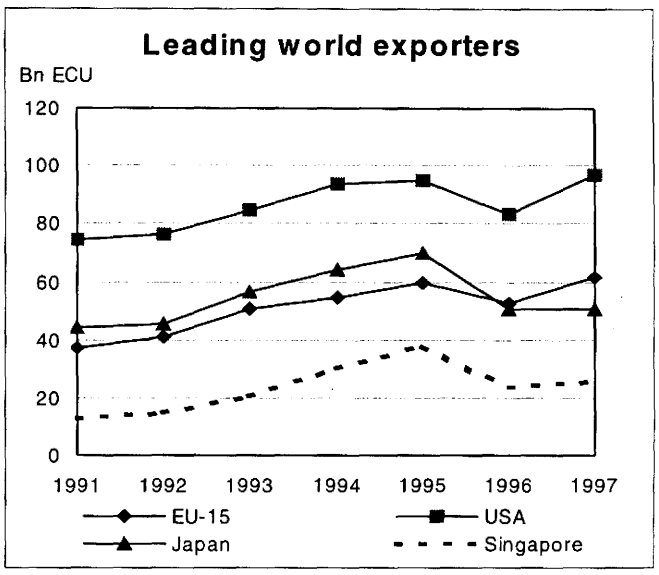
Trade by Member State, 1997 (Bn ECU)

	Extra-EU			Intra-EU			Total Balance	Intra-EU trade/ total (%)
	Imports	Exports	Balance	Arrivals	Dispatches	Balance		
UEBL	1.355	0.522	-0.832	3.069	2.479	-0.590	-1.423	74.7
DK	0.679	0.582	-0.097	1.016	0.983	-0.034	-0.131	61.3
D	14.676	12.529	-2.147	12.573	14.191	1.618	-0.529	49.6
EL	0.237	0.039	-0.198	0.369	0.023	-0.345	-0.543	58.7
E(1)	1.316	0.781	-0.535	2.489	0.850	-1.639	-2.174	61.4
F(1)	16.600	21.825	5.225	15.387	17.243	1.856	7.081	45.9
IRL	2.883	3.101	0.218	1.639	2.608	0.969	1.187	41.5
I	3.348	3.166	-0.182	5.686	3.663	-2.023	-2.205	58.9
NL	9.505	3.299	-6.205	4.124	11.142	7.018	0.813	54.4
A	1.128	0.884	-0.244	1.934	1.266	-0.668	-0.912	61.4
P	0.404	0.218	-0.186	0.611	0.161	-0.449	-0.635	55.4
FIN	0.994	0.844	-0.150	1.279	0.399	-0.880	-1.031	47.7
S	2.131	2.278	0.146	2.325	1.662	-0.663	-0.516	47.5
UK	16.218	11.510	-4.708	7.129	11.291	4.162	-0.546	39.9
EU-15	71.474	61.579	-9.895		67.961			50.5

(1) These figures must be interpreted in the light of the inclusion, since 1.1.1997, of the Canary Islands in the customs territory of Spain and of the French overseas departments, (Guadeloupe, Martinique, French Guiana and Réunion) in the customs territory of France.

II. World trade





Of the world's ten largest importers of high technology products between 1991 and 1997, the United States imported more than any other country from 1992 onwards, overtaking the European Union, which had been leader in 1991, and Singapore and Japan. In 1997 these countries' imports amounted to ECU 74.3, 71.5, 28.2 and 24.1 billion respectively, while in 1996 (when data on the "Top ten" became available) they stood at ECU 68.3, 60.2, 25.9 and 22.7 billion respectively, i.e. 23.1%, 20.4%, 8.8% and 7.7% of total world imports. The United States and the European Union alone accounted for almost half of all imports of high technology products. Singapore's and Japan's relatively low level of imports should also be noted; the sum of their imports together amounted to less than that of the European Union. However, in relation to total national imports of all products without distinction, in 1996 high technology imports represented 25% of total imports in Singapore, 10.6% in the United States, 10.3% in the European Union and 8.2% in Japan.

From 1991 to 1997 the United States was also the world's largest exporter of high technology products. Japan, then the European Union, lagged far behind between 1991 and 1995. From 1996 onwards Japan lost its second place to the European Union. Singapore, in fourth place, retained this position throughout 1991 to 1997. In 1997, exports from the United States, the European Union, Japan and Singapore amounted to ECU 97.2, 61.6, 50.5 and 25.8 billion respectively. In 1996 all four of the largest exporters experienced a significant drop in their exports, which totalled ECU 83.7, 52.6, 50.5 and 23.6 billion respectively; i.e. 27.4%, 17.2%, 16.6% and 7.7% of total world exports. The United States alone accounted for over a quarter of high technology exports. However, in relation to total national exports of all products without distinction, high technology exports represented 23.9% of total exports in Singapore, 17.1% in the United States, 15.6% in Japan and 8.4% in the European Union.

Leading world traders, 1996

Reporter	Imports			Trade balance (Bn ECU)
	Total (Bn ECU)	World share (%)	National share (%)	
EU-15	60.152	20.4	10.3	-7.518
USA	68.256	23.1	10.6	15.484
Singapore	25.851	8.8	25.0	-2.281
Japan	22.657	7.7	8.2	27.866
Hong Kong	16.960	5.7	10.7	-4.262
Malaysia	16.778	5.7	27.3	-1.211
South Korea	13.779	4.7	11.6	0.521
Canada	12.289	4.2	9.1	-1.860
China	8.616	2.9	7.9	-4.350
Philippines	6.571	2.2	24.0	-0.302
Total of 10	**251.909**	**85.4**	**11.4**	**22.086**
World	**295.066**	**100.0**	**10.1**	

Reporter	Imports			Trade balance (Bn ECU)
	Total (Bn ECU)	World share (%)	National share (%)	
USA	83.740	27.4	17.1	15.484
EU-15	52.634	17.2	8.4	-7.518
Japan	50.524	16.6	15.6	27.866
Singapore	23.569	7.7	23.9	-2.281
Malaysia	15.568	5.1	25.3	-1.211
South Korea	14.300	4.7	14.0	0.521
Hong Kong	12.698	4.2	8.9	-4.262
Canada	10.429	3.4	6.6	-1.860
Philippines	6.270	2.1	38.8	-0.302
Mexico	4.288	1.4	5.7	-1.752
Total of 10	**274.018**	**89.8**	**13.1**	**24.685**
World	**305.252**	**100.0**	**10.6**	

Source: Eurostat (EU-15) and Comtrade (UN).

III. Leading world importers

In 1996, almost two out of every five high technology products imported by the European Union , i.e. 38.7%, came from the United States , and just over one out of ten, i.e. 12.4%, from Japan. Further EU imports came from a wide variety of other countries: the ASE6 countries contributed 11.7%, the EFTA countries 4.5%, Singapore 4.4% and the Mediterranean basin countries 3%. The United States imported a quarter of its high technology products from the ASE6 countries, 22.2% from Japan and 16.4% from the European Union. Singapore imported 38% of its high technology products from the ASE6 countries, i.e. approximately two out of every five products, and 22.7% from the United States, 20.3% from Japan and 9.4% from the European Union. Slightly over half of Japan's high technology imports were from the United States, i.e. 51.4%, while 20.6% were from the ASE6 countries, 9.7% from the European Union and only 5.1% from Singapore.

In 1996, the bulk of the high technology products imported into the European Union were general electronic goods (ECU 19 billion), of which 26.7% were from the United States, 23.3% from the ASE6 countries and 20% from Japan. Aerospace industry products came next and accounted for ECU 17.5 billion, of which almost half, 48.9%, came from the United States. The latter's main import was also general electronic goods. These imports totalled ECU 34.1 billion and were principally (39.3%) from the ASE6 countries, followed by Japan at 23.4%, the European Union at 8.2% and Singapore at 7.3%. The United States' second most imported product category was computers and office machinery, which amounted to ECU 18.5 billion, of which 25% were from Japan, 16.2% from the ASE6 countries and 11.9% from Singapore. The majority of the latter's imports were again general electronic goods, amounting to ECU 17 billion; 40.5% came from the ASE6 countries, 23.6% from Japan, 18.6% from the United States and 8.6% from the European Union. Singapore's next largest high technology import category was computers and office machinery, amounting to ECU 6.1 billion, of which 44.7% came from the ASE6 countries and 23.7% from the United States. General electrical goods were also Japan's largest import category; they totalled ECU 10.8 billion and the main source was the United States which supplied almost half, i.e. 48.5%, followed by the European Union at 28.9%. Computers and office machinery were second at ECU 4.9 billion, of which 35.3% from the United States, 26.1% from the ASE6 countries and a mere 5.5% from the European Union.

Structure of world imports in 1996

Product	Total (Bn ECU)	Share by partner (%)											
		EU-15	USA	EFTA	Japan	Singa-pore	CEEC	Mediter. Basin	Ase6	CIS	Merco-sur	ACP	Others
EU-15													
High-tech products	60.152	-	38.7	4.5	12.4	4.4	1.3	3.0	11.7	1.1	0.2	1.9	20.8
Electronics	19.003	-	26.7	2.3	20.0	7.0	1.8	2.9	23.3	0.0	0.1	0.1	15.8
Aerospace industry	17.484	-	48.9	3.9	1.1	0.5	0.4	5.7	2.2	1.5	0.4	6.2	29.4
USA													
High-tech products	68.256	16.4	-	0.6	22.2	7.1	0.1	1.0	25.0	0.3	0.3	0.1	26.9
Electronics	34.123	8.2	-	0.2	23.4	7.3	0.2	0.7	39.3	0.0	0.1	0.1	20.7
Computers, office machines	18.469	7.2	-	0.1	25.0	11.9	0.0	0.2	16.2	0.0	0.2	0.1	39.1
Singapore													
High-tech products	25.851	9.4	22.7	0.1	20.3	-	0.1	1.0	38.0	0.0	0.0	0.0	8.5
Electronics	16.984	8.6	18.6	0.1	23.6	-	0.1	1.4	40.5	0.0	0.0	0.0	7.1
Computers, office machines	6.128	7.0	23.7	0.1	11.1	-	0.0	0.1	44.7	0.0	0.0	0.0	13.2
Japan													
High-tech products	22.657	9.7	51.4	0.4	-	5.1	0.1	0.2	20.6	0.1	0.0	0.0	12.5
Electronics	10.834	4.7	48.5	0.1	-	7.5	0.0	0.0	28.9	0.0	0.0	0.0	10.2
Computers, office machines	4.862	5.5	35.3	0.0	-	6.3	0.0	0.3	26.1	0.0	0.1	0.0	26.4

Source: Eurostat (EU-15) and Comtrade (UN).

The areas represented in the aggregates in this table do not overlap.

IV. Leading world exporters

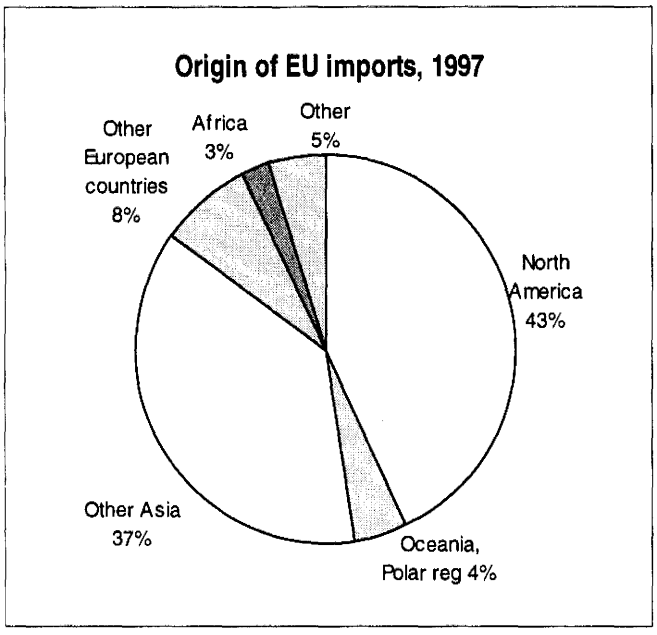
In 1996, over a quarter (i.e. 27.5%) of the high technology products exported by the European Union were dispatched to the United States, slightly over one out of every ten (i.e. 12.3%) to the ASE6 countries, 7.6% to the EFTA countries and 7.4% to the Mediterranean countries. The United States exported slightly over a quarter (i.e. 25.4%) of its high technology products to the European Union, and dispatched 17.4 % to the ASE6 countries, 11.5% to Japan and 6.1% to Singapore. As regards Japan, over a third (i.e. 31.3%) of its high technology exports went to the United States, 27.8% to the ASE6 countries, 15.9% to the European Union and 9.4% to Singapore. The latter exported over a third (i.e. 34.8%) of its high technology products to the ASE6 countries, over a quarter (26.4%) to the United States, 17.4% to the European Union and 8.2% to Japan.

In 1996 the European Union's main high technology exports were aerospace industry products amounting to ECU 21.9 billion. Almost a third, i.e. 30.4%, went to the United States, 9% to the ASE6 countries and slightly over 8% to the Mediterranean and the EFTA countries and only 1.3% to Japan. The second largest export category was electronic goods at ECU 12 billion, of which 25.2% were dispatched to the ASE6 countries, 23.1% to the United States and 10.1% to Singapore. This category was also the United States' main high technology export, amounting to ECU 32 billion, of which 28.7% went to the ASE6 countries, 14.5% to the European Union and 11.1% to Japan. The U.S.'s second largest export group was aerospace industry products, amounting to ECU 22 billion, of which 31.7% went to the European Union, 13% to the ASE6 countries and 7.3% to Japan. The latter's main exports were general electronic products, which amounted to ECU 28.6 billion, of which 38.2% went to the ASE6 countries, 23.7% to the United States, 13.1% to Singapore and 11.2% to the European Union. Computers and office machinery came second, amounting to ECU 11.7 billion of which almost half (i.e. 46.3%) went to the United States, while 21.6% went to the European Union and 11.9% to the ASE6 countries. As regards Singapore, general electronic goods amounted to ECU 15.5 billion and were its main export. Most of these goods (i.e. 41.8%) went to the ASE6 countries, while the United States received 21.8% and the European Union 14.5%. Singapore's second largest export was computers and office machinery amounting to ECU 7.2 billion, of which 37% went to the United States, 23.9% to the European Union and 20.6% to the ASE6 countries.

Structure of world exports in 1996

Product	Total (Bn ECU)	Share by partner (%)											
		EU-15	USA	EFTA	Japan	Singa-pore	CEEC	Mediter. Basin	Ase6	CIS	Merco-sur	ACP	Others
EU-15													
High-tech products	52.634	-	27.5	7.6	4.2	4.3	4.5	7.4	12.3	2.5	1.9	3.1	24.8
Aerospace industry	21.922	-	30.4	8.2	1.3	3.0	1.0	8.5	9.0	1.5	1.1	5.8	30.3
Electronics	11.996	-	23.1	4.8	4.4	10.1	6.1	7.5	25.2	0.7	1.3	0.4	16.3
USA													
High-tech products	83.740	25.4	-	2.1	11.5	6.1	0.3	2.0	17.4	0.5	2.6	0.4	31.7
Electronics	32.043	14.5	-	0.3	11.1	9.2	0.1	0.8	28.7	0.1	0.8	0.1	34.3
Aerospace industry	21.952	31.7	-	5.4	7.3	4.1	0.4	1.6	13.0	1.2	2.4	0.9	32.1
Japan													
High-tech products	50.524	15.9	31.3	0.3	-	9.4	0.1	0.3	27.8	0.1	0.7	0.0	14.1
Electronics	28.558	11.2	23.7	0.1	-	13.1	0.1	0.2	38.2	0.0	0.7	0.0	12.6
Computers, office machines	11.692	21.6	46.3	0.1	-	5.1	0.0	0.2	11.9	0.0	0.2	0.0	14.5
Singapore													
High-tech products	23.569	17.4	26.4	0.6	8.2	-	0.1	0.9	34.8	0.6	0.2	0.0	10.8
Electronics	15.531	14.5	21.8	0.8	9.5	-	0.0	0.8	41.8	0.1	0.2	0.0	10.4
Computers, office machines	7.202	23.9	37.0	0.1	5.4	-	0.2	0.3	20.6	1.6	0.1	0.1	10.8

V. EU imports by trading partner



In 1997, looking at the geographical locations of the countries supplying the EU, 43% of its high technology imports came from North America, 37% from "Other Asian countries", 8% from "Other European countries", 4% from Oceania and the polar regions and 3% from Africa.

The United States was the EU's top trading partner in 1997 at ECU 28.8 billion, accounting for 40.3% of the European Union's total high technology imports, and almost 21.1% of its total imports of all products without distinction. The United States considerably improved its position, because growth in US exports to the EU increased from -23.3% in 1996 to 23.7% in 1997. Japan was next at ECU 8.3 billion, i.e. 11.6 % of total EU high technology imports, which themselves made up 14% of total EU imports from Japan. Japan also considerably improved its position, as growth in its exports to the EU increased from -43.4% in 1996 to 10.9% in 1997. Singapore came far behind in 1997 with 4.9% of the market share, followed by Taiwan with 4.7%, Malaysia with 4.1% and Switzerland with 4.0%.

EU imports by main partner

Partner	Imports (Bn ECU)		Growth (%)		Share (%)		Relative share [1] (%)	
	1996	1997	1996	1997	1996	1997	1996	1997
United States	23.3	28.8	-23.3	23.7	38.7	40.3	20.6	21.1
Japan	7.5	8.3	-43.4	10.9	12.4	11.6	14.3	14.0
Singapore	2.7	3.5	-49.4	30.1	4.4	4.9	28.9	31.1
Taiwan	2.6	3.3	-45.9	30.3	4.3	4.7	19.9	21.4
Malaysia	2.5	3.0	-31.8	22.5	4.1	4.2	26.1	28.3
Switzerland	2.4	2.7	-8.4	11.2	4.0	3.7	5.6	5.9
South Korea	1.9	2.5	-22.6	29.1	3.2	3.5	17.3	19.2
Canada	1.9	2.0	8.6	4.3	3.2	2.8	16.9	16.2
China	1.3	1.9	-30.7	42.6	2.2	2.7	4.5	5.1
Hong Kong	1.1	1.3	-14.7	20.1	1.8	1.8	14.7	15.3
Total of 10	**47.1**	**57.3**	**-30.0**	**21.6**	**78.3**	**80.1**	**15.7**	**16.4**
World	**60.3**	**72.0**	**-23.4**	**18.8**	**100.0**	**100.0**	**10.4**	**10.7**

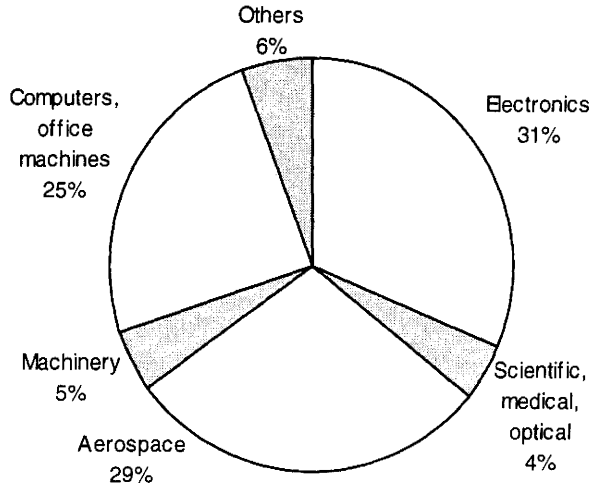
[1] Relative share of high technology product imports in total EU imports from partner country

VI. EU imports by main product

In 1997, 31% of EU imports of high technology products consisted of general electronic goods, 29% of aerospace industry products and 25% of computers and office machinery. These three products alone accounted for 85% of total imports. Machines and scientific, optical and medical instruments came far behind, at 5% and 4% respectively. The remaining product categories amounted to just 6% of total high technology imports.

General electronic goods amounted to ECU 22.5 billion in 1997 and were the most imported category, accounting for 31.5% of total high technology imports in the European Union. Growth in imports of these products increased from 1.2% in 1996 to 18.5% in 1997. Aerospace industry products came second at ECU 20.8 billion, equivalent to 29% of the market, although growth in these imports fell from 19.9% in 1996 to 18.7% in 1997. In third place came computers and office machinery at ECU 17.5 billion, equivalent to 17.5% of the market. The growth rate for imports of these products picked up sharply, rising from -56.3% in 1996 to 26.3% in 1997. Machines came far behind with 4.9% of the market, followed by scientific, medical and optical instruments and prostheses with 4.4% and chemical products with 1.8%.

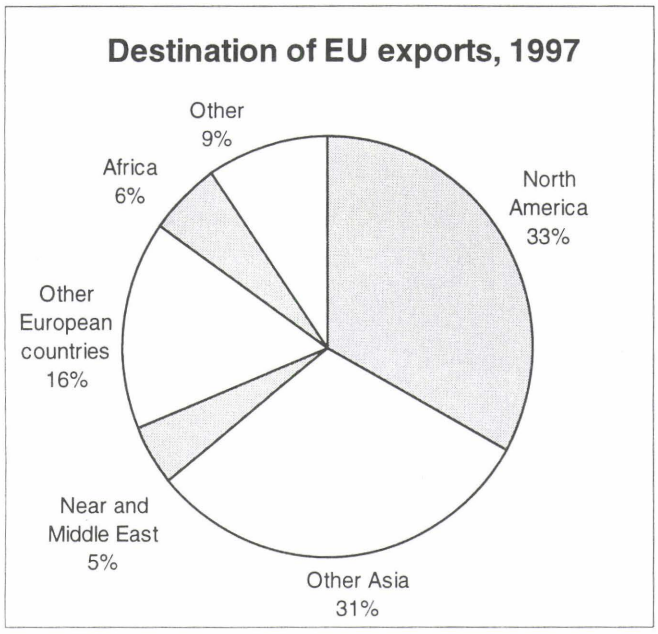
EU imports by product, 1997



EU imports by main product

Product	Imports (Bn ECU)		Growth (%)		Share (%)	
	1996	1997	1996	1997	1996	1997
Electronics	19.0	22.5	1.2	18.5	31.6	31.5
Aerospace industry	17.5	20.7	19.9	18.7	29.1	29.0
Computers, office machines	13.9	17.5	-56.3	26.3	23.1	24.5
Machinery	3.3	3.5	21.8	8.3	5.4	4.9
Scientific, medical, optical app., prostheses	2.8	3.1	-3.3	10.4	4.7	4.4
Chemicals	1.2	1.3	12.1	5.4	2.0	1.8
Nuclear power, radioactive elem., isotopes	0.9	1.1	-3.3	21.8	1.5	1.6
Consumer electronics	0.8	0.9	-75.4	8.3	1.3	1.2
Telecommunication	0.5	0.6	-81.5	20.0	0.8	0.8
Weapons	0.3	0.2	238.1	-34.5	0.5	0.3
TOTAL	**60.2**	**71.5**	**-23.4**	**18.8**	**76.6**	**100.0**

VII. EU exports by trading partner



In 1997, looking at the geographical destinations of EU exports, 33% of EU high technology exports went to North America, while 31% went to "Other Asian countries", 16% to "Other European countries", 6% to Africa and 5% to the Near and Far East.

Exports to the value of ECU 18 billion made the United States the EU's top trading partner in 1997. This figure was equivalent to 29.2% of total EU high technology exports and almost 12.8% of EU global exports of products of all types. The United States considerably improved its position: EU exports to the US increased from -13% in 1996 to 24.3% in 1997. Switzerland followed far behind in second position at ECU 3.3 billion, equivalent to 5.4% of the market and 6.2% of total EU exports to Switzerland. Switzerland's position improved as growth in its EU imports increased from -30.2 % in 1996 to 3.8 % in 1997. Japan, Singapore and Canada came joint third, each at ECU 2.4 billion, equivalent to approximately 4% of the market. China and Taiwan were close on their heels, importing goods to the value of ECU 2.3 and 1.8 billion respectively from the EU.

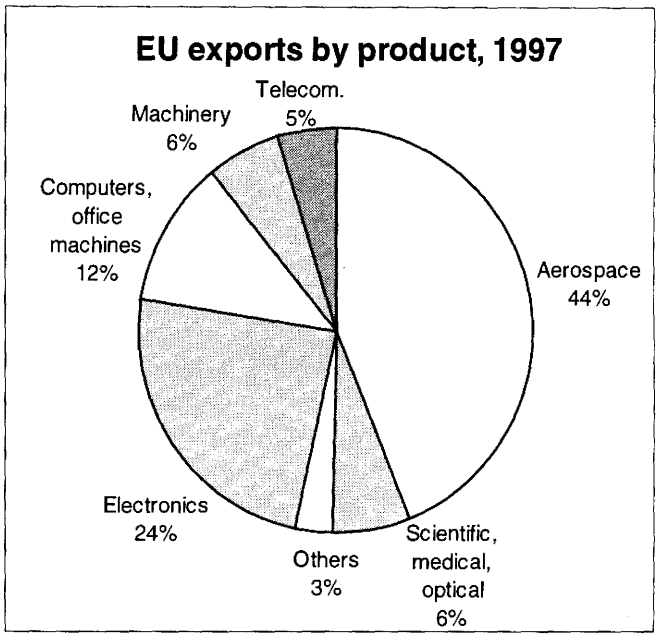
EU exports by main partner

Partner	Exports (Bn ECU)		Growth (%)		Share (%)		Relative share [1] (%)	
	1996	1997	1996	1997	1996	1997	1996	1997
United States	14.5	18.0	-13.0	24.3	27.5	29.2	12.6	12.8
Switzerland	3.2	3.3	-30.2	3.8	6.1	5.4	6.2	6.2
Japan	2.2	2.4	-31.0	10.8	4.2	3.9	6.2	18.1
Singapore	2.3	2.4	21.3	6.7	4.3	4.0	18.6	6.7
Canada	1.2	2.4	-0.1	105.9	2.2	3.8	10.8	16.8
China	1.3	2.3	-8.2	74.4	2.5	3.7	8.9	13.9
Taiwan	0.9	1.8	-23.0	110.1	1.6	2.9	8.6	14.3
Philippines	0.6	1.8	36.0	197.6	1.1	2.9	18.4	34.9
Malaysia	1.7	1.7	-24.0	1.1	3.2	2.8	22.7	19.7
Hong Kong	1.8	1.7	-10.1	-4.4	3.4	2.8	10.3	8.5
Total of 10	**29.6**	**37.8**	**-14.7**	**27.7**	**56.2**	**61.5**	**10.7**	**11.8**
World	**52.6**	**61.6**	**-11.7**	**19.4**	**100.0**	**100.0**	**8.5**	**8.6**

[1] Relative share of high technology product exports in total EU imports from partner country

VIII. EU exports by main products

In 1997, 44% of EU high technology exports consisted of aerospace industry products, 24% of general electronic goods and 12% of computers and office machinery. Together, these three products constituted 80% of total exports. "Scientific, optical and medical instruments" and machines lagged far behind at 6%, as did telecommunications at 5%. The remaining product categories represented only 3% of total high technology exports.



In 1997, aerospace industry products amounted to ECU 27 billion and at 43.8% constituted the lion's share of the EU high technology export market. The growth rate for these products rose from 4.1% in 1996 to 23% in 1997. General electronic goods came second at ECU 14.7 billion, equivalent to 23.9% of the market; the growth rate for these products also increased, rising from 8.9% in 1996 to 22.8% in 1997. Computers and office machinery came third at ECU 7.2 billion, equivalent to 11.7% of the market. The growth rate for these products picked up sharply, from –50.9% in 1996 to 8.3% in 1997. Finally "scientific, medical and optical instruments and prostheses" followed at 6.4%, machines at 6.1% and telecommunications at 4.8%.

EU exports by main product

Product	Exports (Bn ECU)		Growth (%)		Share (%)	
	1996	1997	1996	1997	1996	1997
Aerospace industry	21.9	27.0	4.1	23.0	41.6	43.8
Electronics	12.0	14.7	8.9	22.8	22.8	23.9
Computers, office machines	6.7	7.2	-50.9	8.3	12.7	11.7
Machinery	3.6	3.8	16.2	4.4	6.9	6.1
Scientific, medical, optical app., prostheses	3.2	4.0	-19.5	22.7	6.1	6.4
Telecommunication	2.8	2.9	-20.5	5.7	5.3	4.8
Chemicals	0.7	1.0	-9.7	32.4	1.4	1.6
Nuclear power, radioactive elem., isotopes	0.7	0.7	-11.8	5.5	1.3	1.2
Consumer electronics	0.2	0.2	-89.4	15.4	0.3	0.3
Weapons	0.8	0.1	581.8	-90.1	1.5	0.1
TOTAL	**52.6**	**61.6**	**-11.7**	**17.0**	**100.0**	**100.0**

IX. EU trade balances

From 1995 to 1997, the EU remained in deficit in its foreign trade in high technology products, although it almost halved its global deficit, which decreased from ECU 18.9 to 9.9 billion. In 1997, in relation to its ten main trading partners, the EU's largest deficits were with the United States (ECU 10.8 billion); Japan (ECU 5.9 billion); South Korea (ECU 2.5 billion) and to a lesser degree with Taiwan, Singapore and Malaysia with deficits of approximately ECU 1.5 billion. Conversely, the EU recorded a trade surplus with the Philippines and improved its balance of trade, which increased from ECU 0.4 billion in 1995 to ECU 1.8 billion in 1997. The EU also achieved slight trade surpluses of less than ECU 1 billion in 1997 with Switzerland, Hong Kong, China and Canada.

Trade balance by partner[1] (Bn ECU)

Partner	1995	1996	1997
United States	-13.700	-8.802	-10.797
Japan	-10.047	-5.291	-5.868
Switzerland	1.976	0.813	0.666
Singapore	-3.402	-0.395	-1.046
Malaysia	-1.364	-0.753	-1.288
Taiwan	-3.638	-1.711	-1.544
Canada	-0.638	-0.792	0.343
Hong Kong	0.767	0.747	0.455
China	-0.507	-0.031	0.372
South Korea	-2.493	-1.931	-2.493
Philippines	0.437	0.595	1.771
World	**-18.924**	**-7.518**	**-9.895**

[1]Countries and products are ranked in descending order of total trade (exports + imports) in high technology products with the EU

EU trade balance by product[1] (BnECU)

Product	1995	1996	1997
Aerospace industry	6.478	4.437	6.204
Electronics	-7.767	-7.007	-7.799
Computers, office machines	-18.144	-7.202	-10.294
Machinery	0.434	0.355	0.245
Scientific, medical, optical; prostheses	1.089	0.399	0.840
Telecommunication	0.994	2.316	2.382
Chemicals	-0.264	-0.474	-0.300
Nuclear power,radioact. elem.,isotopes	-0.171	-0.233	-0.398
Weapons	0.030	0.509	-0.117
Consumer electronics	-1.603	-0.619	-0.658
TOTAL	**-18.924**	**-7.518**	**-9.895**

In terms of products, the European Union's main global surpluses in its foreign trade of high technology products were produced by aerospace industry products; the trade surplus in these goods increased from ECU 6.5 billion in 1995 to 6.2 billion in 1997. Telecommunications were second, generating trade surpluses of between ECU 1 and 2.4 billion. The EU also recorded a trade surplus in scientific, medical and optical instruments and prostheses, totalling more or less ECU 1 billion, and to a lesser degree in machines at ECU 0.5 billion. Its most serious trade deficits, however, were in computers and office machinery - where the deficit decreased from ECU 18.1 billion in 1995 to ECU 10.3 billion in 1997 - and in general electronic products, at between ECU 7 and 8 billion. There were also slight deficits in other sectors such as electronic consumer goods, chemical products and "nuclear energy, radioactive materials and isotopes".

Comments

Foreign trade in certain high technology products, such as arms and munitions, aerospace industry products and general electronic goods, may be subject to confidentiality. In these cases, the main techniques used are to conceal the product's destination, its origin, or description. This can result in under-evaluations in the geographical breakdowns of import and export figures. In 1996 for example, the tables showing the structure of world imports and exports for that year include fairly high figures which are not broken down geographically. These figures are recorded in the column entitled "Other".

In addition, differences in national methodologies and flow evaluations (c.i.f. - 'cost, insurance, freight', fob - 'free on board' etc.) and even between the nature of the transactions in question cause a degree of asymmetry in the amounts recorded by trading partners for a given flow.

High technology product list

(Between brackets is the Harmonised System code for codification and designation of merchandise, used at present in more than 130 countries for external trade statistics)

Aerospace

Turbo-jets 25kN (841111)
Turbo-jets 25kN (841112)
Turbo-propellers 1100 kW (841121)
Turbo-propellers 1100 kW (841122)
Parts of turbo-jets or turbo-propellers (841191)
Reaction engines other than turbo-jets (841210)
Radar app., radio navigational aid app., etc. (8526)
Helicopters 2000 kg (unladen weight) (880211)
Helicopters 2000 kg (unladen weight) (880212)
Aeroplanes 2000 kg (unladen weight) (880220)
Aeroplanes between 2000k and 15000 k (unladen weight) (880230)
Aeroplanes 15000 kg (unladen weight) (880240)
Spacecraft, satellites, etc. (880250)
Propellers, rotors, parts thereof (880310)
Ground flying trainers, parts thereof (880520)
Instruments for aeronautical navigation (901420)

Telecommunication

Telephonic or telegraphic switching appar. (851730)
Apparatus for carrier-current line systems (851740)
Telegraphic apparatus (851782)
Optical fibre cables telecommunication (854470)
Apparatus designed for telecommunication (903040)

Computers, office machines

Word-processors, automatic type writers (846910)
Analogue or hybrid computers (847110)
PCs (847120)
Processing units (847191)
Input or output units (847192)
Storage units (847193)
Other computer units (847199)
Parts of computers and computer units(847330)
Photocopying apparatus - electrostatic, (900912)
Photocopying apparatus - other (900921)

Electronics

LCD and LED indicator panels (853120)
Fixed capacitors, tantalum (853221)
Fixed capacitors, aluminium electrolytic (853222)
Fixed capacitors, ceramic diel. single layer (853223)
Fixed capacitors, ceramic diel. multilayer (853224)
Printed circuits (8534)
Boards, panels, etc. =1000 V (853710)
Other microwave tubes (e.g. carcinotrons) (854049)
Other valves and tubes of heading 8540 (854089)
Diodes (854110)
Transistors dissipation rate 1W (854121)
Transistors others (854129)
Thyristors, diacs, triacs (854130)
Photosensitive semiconductors (854140)
Other semiconductors (854150)
Mounted piez-oelectric crystals (854160)
Semi conductors parts (854190)
Electronic integrated circuits (8542)
Signal generators (854320)
X-ray tubes (902230)
Automatic regulating apparatus (903289)

Consumer electronics

Sound reproducing apparatus (851999)
Video recording or reproducing app.(852190)
Other recorded media (CDs, CDROMs) (852490)
Television cameras (including camcorders) (852530)

Scientific, medical, optical apparatus; prostheses

Particle accelerators (854310)

Optical fibres and cables not for telecommunication (900110)

Monoculars, telescopes, astron. instruments (900580)

Microscopes other than optical (901210)

Parts and accessories of 901210 (901290)

Lasers (901320)

Other optical instruments of chapter 90 (e.g. LCDS) (901380)

Electrocardiographs (901811)

Electrodiagnostic apparatus (901819)

Artificial joints (902111)

Other artificial body parts 902130)

Hearing aids (902140)

Pacemakers (902150)

X-ray apparatus for medical use (902211)

X-ray apparatus for other uses (902219)

Alpha, beta gamma ray apparatus for medical use (902221)

Alpha, beta gamma ray apparatus for other uses (902229)

Other products of 9022 (e.g. X-ray screens) (902290)

Spectrometers, spectrophotometers, spectrographs (902730)

Apparatus using optical radiations (902750)

Apparatus for measuring ionising radiations (903010)

Cathode-ray oscilloscopes and oscillographs (903020)

Machinery

Gas turbines 5000 kW (841181)

Gas turbines 5000 kW (841182)

Parts of gas turbines (841199)

Machine tools operated by laser, ultrasonic, etc. (8456)

Multifunction transfer machines (845710)

Flat surface grinding mach. accur. 0,01 mm, num. control (846011)

Other grinding mach. accur. 0,01 mm, num. control (846021)

Sharpening machines, numerically controlled (846031)

Honing or lapping machines (846040)

Automatic machines for resistance welding (851521)

Automatic machines for arc welding (851531)

Nuclear power; radioactive elements and isotopes

Natural uranium (284410)

Enriched uranium, plutonium (284420)

Depleted uranium, thorium (284430)

Spent fuel elements of nuclear reactors (284450)

Heavy water (deuterium oxide) (284510)

Nuclear reactors (840110)

Apparatus for isotopic separation (840120)

Fuel elements, non-irradiated (840130)

Parts of nuclear reactors (840140)

Chemicals

Pure silicon (280461)

Selenium (280490)

Rare earth metals, scandium, yttrium (280530)

Germanium oxides, zirconium dioxide (282560)

Radioactive elem. and isotopes (other than U,Th,PL) (284440)

Non radioactive isotopes (other than heavy water) (284590)

Compounds of rare earth metals, of yttrium, of scandium (2846)

Hormones (2937)

Polyethylene terephthalate (390760)

Weapons

Tanks and other armoured fighting vehicles (8710)

Military weapons (9301)

Bombs, grenades, torpedoes, mines, missiles, and similar (930690).

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